## REMARKS

Claims 1-19 are pending in this application. By this Amendment, claims 1, 2, 4, 5, 7-13 and 15-17 are amended and claims 18 and 19 are added. Reconsideration based on the above amendments and the following remarks is respectfully requested.

### I. The Specification Satisfies All Formal Requirements

The Office Action objects to the Abstract. Accordingly, the Abstract is amended. Withdrawal to the objection to the Abstract is respectfully requested.

Further, the Office Action objects to the title for not being descriptive. Accordingly, the title is amended. Withdrawal to the objection to the title is respectfully requested.

### II. The Claims Define Patentable Subject Matter

Claims 1-8, 12-15 and 17 are rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 5,566,367 to Mitsutake et al. This rejection is respectfully traversed.

Mitsutake does not disclose the rock crystal member being disposed not to change a polarizing state of light passing through the rock crystal member, as claimed in claim 1 and similarly claimed in claim 12.

Instead, Mitsutake discloses that quarter wavelength plates $23_1$ and $23_2$ can be formed of a cyrstaline material such as rock crystal (please see column 5, lines 41-43). As such, in Mitsusake, each wavelength plate functions to change a polarizing state of light passing through the wavelength plate. In contrast, as recited in amended claims 1 and 12, a rock crystal member is disposed not to change a polarizing state of light passing through the rock crystal member. Thus, Mitsutake does not teach or suggest the features of amended claims 1 and 12.

Additionally, Mitsutake does not disclose the rock crystal member is disposed in such a manner that a Z axis of the rock crystal is substantially perpendicular to a center axis of a light passing through the rock crystal member, as claimed in claim 2 and similarly recited in

claim 13. Nor does Mitsutake disclose the rock crystal is substantially parallel to a center axis of a light passing through the rock crystal member, as recited in claim 4 and similarly recited in claim 15.

Instead, Mitsutake disclosed that quarter wavelength plates $23_1$ and $23_2$ can be formed of a crystalline material such rock crystal. However, Mitsutake does not disclose the relationship between a Z axis of rock crystal and light passing through a rock crystal member. That is, Mitsutake does not disclose that a Z axis of the rock crystal is substantially parallel to or perpendicular to a center axis of a light passing through the rock crystal member. As such, Mitsutake does not teach or disclose or suggest the features of amended claims 2, 4, 13 and 15.

Mitsutake does not disclose that a Z axis of the rock crystal substrate is set to be substantially parallel to a surface of the substrate, as claimed in claim 5. Further, Mitsutake does not disclose that a Z axis of the rock crystal substrate is set to be substantially perpendicular to a surface of the substrate, as claimed in claim 7 and similarly claimed in claim 8.

Instead, Mitsutake discloses that quarter wavelength plates $23_1$ and $23_2$ can be formed of a crystalline material such as rock crystal. However, Mitsutake does not disclose the relationship between a Z axis of rock crystal and a rock crystal substrate. Thus, the features of amended claims 5, 7 and 8, that the Z axis of the rock crystal substrate is set to be substantially parallel or substantially perpendicular to a surface of the rock crystal substrate, is not taught, disclosed or even suggested in Mitsutake.

Mitsutake does not disclose that at least one of the colored light separation optical system and the color light composition optical system comprises an optical component, wherein the optically component comprises a rock crystal member composed of rock crystal, as claimed in claim 17.

Instead, Mitsutake discloses a color separation system 81, 82, 83 and a color combination system 84, 85 and 86 (figure 12). Further, Mitsutake discloses that quarter wavelength places $23_1$ and $23_2$ can be formed of a crystalline material such as rock crystal. However, Mitsutake does not disclose that a rock crystal member is provided in the color separation or color combination system. In contrast, according to the features recited in claim 17, at least one of the color light separation optical system and the color light composition optical system comprises an optical component including a rock crystal member composed of rock crystal. Thus, Mitsutake does not teach or disclose the features recited in claim 17.

Finally, Mitsutake does not disclose the features of new claim 18 and claim 19. The features of claims 18 and 19 are disclosed in the specification on page 23, lines 14-17 and page 30, line 21 through page 31, line 10, respectively.

Accordingly, withdrawal of the rejection of claims 1-8, 12-15 and 17 under 35 U.S.C. §103(a) in view of Mitsutake is respectfully solicited.

## III. Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-19 are earnestly solicited.

Should the Examiner believe that anything further is desirable in order to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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Attachments:
Amendment Transmittal
Abstract

Date: June 20, 2003

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DEPOSIT ACCOUNT USE AUTHORIZATION
Please grant any extension necessary for entry;
Charge any fee due to our Deposit Account No. 15-0461

## ABSTRACT

~~The present invention provides a technique of readily manufacturing a projector.~~ The projector comprises: an illumination optical system for emitting light; an electro-optical device for modulating the light emitted from the illumination optical system in response to image information; a projection optical system for projecting a modulated light generated by the electro-optical device; and an optical component having a rock crystal member composed of rock crystal, the optical component being located in an optical path including the illumination optical system and the projection optical system. For example, the optical component provided on a light incident side or a light exiting side of the electro-optical device has a rock crystal substrate 308G as the rock crystal member and a polarizing plate 302Go arranged on the substrate. It is preferable that a Z axis of the rock crystal substrate 308G is set to be substantially parallel to or substantially perpendicular to the surface of the substrate.